

# HVAC26A controller Trouble Shooting Guide

**WARNING:** To avoid injury, isolate and verify power isolation before working on potentially hazardous areas such as fans and live wiring.

## Status Display and Fault Trip History:

Note that fault trips are stored in a non-volatile memory that stores the last 4 trips. Refer to the two buttons below the LCD on the HVAC26A controller. The fault trip history can be viewed by pressing the “TRIP VIEW” button. When pressed, the last/current trip code is displayed. If this button is held down and the “TRIP STEP” button pressed, the next trip code is displayed and so on. To erase the entire trip history, hold both buttons down for 10 seconds. **Note: the fault history can only be erased if the machine is not currently in a fault condition.**

HVAC26A Fault Messages	Description
No Fault	No trip registered
Phase Fail Fault	Phase fail
Indoor Fan Overload	Indoor fan trip
S1: Compressor Overload	Stage 1 compressor O/L
S1:Outdoor Fan Overload	Stage 1 outdoor fan O/L
S1: High Pressure Fault	Stage 1 high pressure fault
S1:Low Pressure Fault	Stage 1 low pressure fault
S2:Compressor Overload	Stage 2 compressor O/L
S2:Outdoor Fan Overload	Stage 2 outdoor fan O/L
S2:High Pressure Fault	Stage 2 high pressure fault
S2Low Pressure Fault	Stage 2 low pressure fault
S1:Low Pressure O'Ride Fault	Stage 1 low pressure during defrost (board fault)
S2:Low Pressure O'Ride Fault	Stage 2 low pressure during defrost (board fault)
S1:Defrost Sensor Bad	Stage 1 thermistor short circuit
S2:Defrost Sensor Bad	Stage 2 thermistor short circuit

When the buttons are not pressed, the current operating status of the controller is displayed:

HVAC26A LCD Operating Status Message	Description
System Idle	Idle
Indoor Fan Request	TS fan contact but indoor fan not running
Indoor fan Running	TS fan contact, indoor fan running, no stage call
Stage 1 Running	Stage 1 running
Stage 2 Running	Stage 2 running
Stage 1 and 2 Running	Both stages running
Stage 1 Defrost Heatup	Stage 2 heating up for defrost of stage 1
Defrosting Stage 1	Stage 1 defrosting
Stage 1 Defrost Heatup	Stage 1 heating up for defrost of stage 2
Defrosting Stage 2	Stage 2 defrosting
Fault! Press TripView Button	Fault

## Defrost Sensor Temperature Display:

When the “Trip Step” but not the “Trip View” button is pressed, the display shows the defrost sensor temperatures. The top line of the LCD will display the temperature of the stage 1 sensor and the bottom line displays the stage 2 sensor temperature. The following table shows some examples:

<b>Example</b>	<b>Description</b>
S1: -3.2 °C S2: 10.2 °C	Stage 1 is at -3.2 °C Stage 2 is at +10.2 °C
S1: Sensor Fault S2: 8.9 °C	Stage 1 sensor fault (short circuit) Stage 2 is at 8.9 °C
S1: -8.4 °C S2: Sensor Fault	Stage 1 is at -8.4 °C Stage 2 sensor fault (short circuit)

## Trouble Shooting Guide:

<b>Problem</b>	<b>Reason</b>	<b>Solution</b>
LCD display is blank	1). No power to controller  2). Controller is faulty	1). Check power at controller 24 VAC terminal block. If there is no 24VAC power, locate reason eg: external circuit breaker, fuse, transformer, wiring etc.  2). If 24 VAC power is available at controller terminal block, replace controller
No power to thermostat	1). Controller fuses blown  2). Thermostat wiring faulty	1). Check fuses F1 and F2 on controller PCB  2). Check thermostat wiring
Display on controller is displaying a fault	1). Controller has detected a fault condition.	1). Read fault code by pressing TRIP VIEW push button and rectify current fault accordingly:  Phase failure/phase rotation. Check 3-phase power connection and power. <b>Check fuse F3 on controller (fault chain fuse).</b>  Low Pressure O'Ride Fault, replace the controller.  Defrost sensor Bad, check sensor wires, replace sensor.  Other faults, rectify as necessary.  <b>Reset trips by cycling thermostat indoor fan or stage 1 call input.</b>
Compressor(s) do not operate.	1). Temperature setting is too high in COOL mode or temperature setting too low in HEAT mode on thermostat.  2). Stage call from thermostat or wiring is faulty.  3). Controller is unable to turn compressor on	1). Set appropriate temperature.  2). Check thermostat and wiring.  3). Check compressor contactor coil is receiving power from the controller and that contactor is operational. If controller is displaying status indicating compressor should run (3 → 9), but there is no power to compressor contactor coil, replace controller.

<b>Problem</b>	<b>Reason</b>	<b>Solution</b>
Outdoor fan(s) do not operate	1). Temperature setting is too high in COOL mode or temperature setting too low in HEAT mode on thermostat. 2). Stage is not called for. 3). Unit in defrost mode 4). Controller is unable to turn out door fan on	1). Set appropriate temperature. 2). Verify that stage call from thermostat is active. 3). Read operating mode on LCD display. If this is the case, wait for defrost completion. 4). Check that there is power available to energise fan. If stage compressor is running and out door fan is not, check the voltage on the output terminal of the out door fan relay on controller. If no voltage, replace the controller else locate wiring/fan fault.
In door fan does not operate	1). There is no fan signal from the thermostat reaching the controller. 2). Controller is unable to turn the in door fan on	1). Check thermostat and wiring 2). Check that there is power available to energise fan. If thermostat fan call is on, check that the controller is supplying power to energise the contactor coil. If it is not, replace the controller.
Stage(s) run in HEAT mode when cooling mode selected	1). Reversing valve(s) faulty 2). Thermostat and/or heat signal wiring faulty 3). Controller faulty	1) Replace reversing valve 2). Check thermostat and wiring 3). Check that the heat mode thermostat terminal of the controller is not active and that the reversing valve(s) de-energise when disconnected from the controller. If this is the case, replace the controller.
Stage(s) run in cool mode when HEAT mode selected	1). Reversing valve(s) faulty 2). Thermostat and/or heat signal wiring faulty 3). Controller faulty	1). Replace reversing valves 2). Check thermostat and wiring 3). Check that the heat mode thermostat terminal of the controller is active and the controller is not supplying power to the reversing valve(s). If this is the case, replace the controller. Ensure that unit is not in defrost mode.
The controller does not respond to thermostat input status change	1). Defrost is pending or in progress 2). Controller faulty	1). Read current status on the display. If this is the case, wait for defrost completion. 2). Replace the controller.